FICCI

FICCI HEAL 2008

HEALTH - ENTERPRISE AND LEARNING

"Fostering Quality Healthcare for All"

FICCI Heal 2008 - Recommendations for the road ahead"

Federation of Indian Chambers of Commerce and Industry

Compiled, Edited and Published By

FICCI Health Services Division

FICCI

FICCI HEAL 2008

HEALTH - ENTERPRISE AND LEARNING

"Fostering Quality Healthcare for All"

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2.	**Private Investment in Healthcare**			
	• High capital cost to set up a hospital due to land & equipment (capital cost of one bed is 40 lakhs in tertiary care, 20 lakhs in secondary care and 5 lakhs in primary care) • Long gestation period of 5-7 years and low returns • Margins squeezed by very high operating costs • Depreciation of assets and high interest costs of debt financing • Lack of organized players	• Create an enabling environment for domestic and foreign investors • Provide transparent regulatory framework & better institutional governance • Relaxation of stringent establishment laws		• Increased investment in healthcare • Increase in supply of healthcare facilities • Saturation in metros and Tier I cities will guide healthcare providers to move to untapped markets in Tier II & Tier III cities. • Market competition will be ensured • Reduction in supply-demand gap and market competition will lead to quality improvement in healthcare delivery and cost going down

S. No	Issues	Actions by Government	Actions by Private Sector	Benefits/Outcomes
3.	**Quality & Accreditation**			
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S. No	Issues Government	Actions by Sector	Actions by Private	Benefits/Outcomes
5.	**Health Insurance**			
	• Low penetration at only 2% coverage • High claim ratio to the tune of 100-230% • Lack of standardization & transparency in operational activities of healthcare providers & health insurance providers leading to friction between the two key stakeholders	• Mandatory Health Insurance for formal sector and BPL population • Promote retail & community health insurance for informal sector • Subsidization or provision of tax incentives to increase penetration of health insurance • Capacity building of Intermediaries selling and servicing medical policies • Creating consumer awareness regarding benefits of early investment in health insurance	• Streamline the differences between healthcare providers & insurers • Develop transparent procedures • Standardize operational procedures and treatment protocols to facilitate differential health insurance packages affordable for different segments of society • Patient redressal mechanism in the hospital • Patient satisfaction surveys	• Improved collaboration between stakeholders • Increased awareness of health insurance benefits leading to increased penetration of health insurance • Patient satisfaction and improved quality in healthcare
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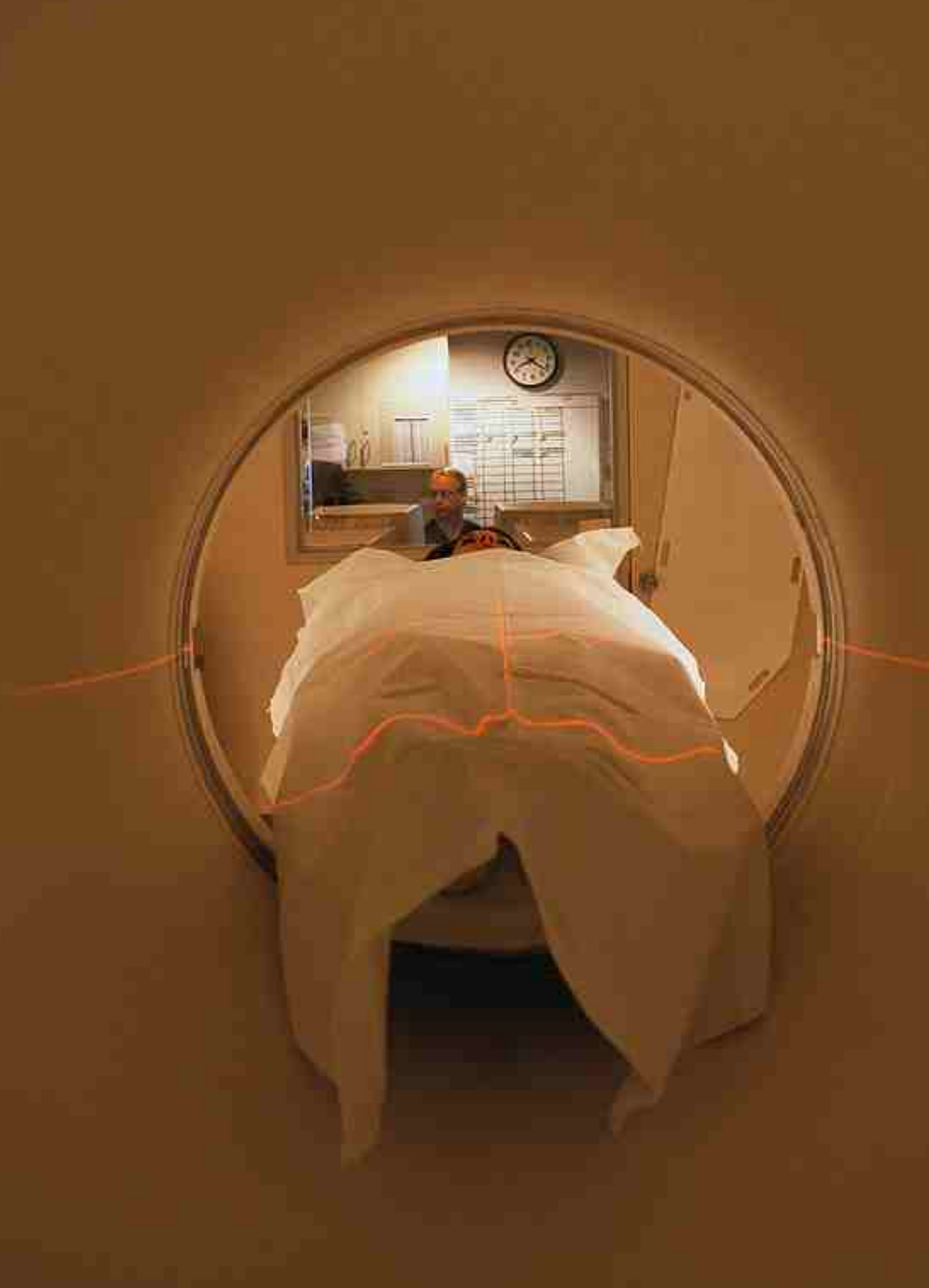


FICCI Health Initiatives Emerging out of FICCI-HEAL 2008

1. **Infrastructure Status for the Healthcare Sector**

   FICCI has submitted a paper to the Government justifying the need for infrastructure status for the healthcare sector in order to increase the outreach of affordable quality healthcare.

2. **Public Private Partnership**

   Although, the healthcare provision is State Government's mandate, but sustainable and affordable quality care is not possible because of huge investment, manpower and other logistic requirement. Thus, a joint effort by public and the private sector through Public-Private Partnerships (PPP) is the solution for getting accessible, affordable and equitable healthcare leading to cost efficiency, distributional equity, enforcement of standards and regulations and attracting private investment for healthcare.

   FICCI Health Services Committee has set up a Task Force on PPP to address the healthcare access and delivery challenges. The paper would be supported by

   - research based evidence for the best practices shared in FICCI HEAL 2008
   - including other models that has worked in India and abroad not only in Health sector but other sectors
   - suggesting few workable models that can be adopted by State Governments on Planning Commissions recommendations

3. **Health Insurance**

   FICCI has constituted a Joint Health Insurance sub-group comprising senior representatives of the healthcare providers and the health insurance companies. with the focus on

   - Increasing market penetration of health insurance
   - Streamlining differences between healthcare providers and insurers/TPAs by carrying out activities which would help enhance transparency in operation, gain higher customer confidence and reduce any friction on claim settlements.
   - Creating awareness and educating the stakeholders

4. **Clinical Establishments (Registration & Regulation) Bill 2007**

   FICCI has submitted its feedback on the Clinical Establishment Bill 2007 to the Ministry of Health and Family Welfare, Government of India requesting stakeholder consultations (including all States and private sector healthcare organizations) before implementing the Bill for an effective and efficient framework to be in place.

5. **Draft National Public Health Bill 2008, Government of India**

FICCI is in the process of collating industry feedback on the Draft National Public Health Bill 2008, Government of India, which will be presented to the Ministry of Health and Family Welfare, Government of India.

An overview of the Indian Healthcare Scenario

i. In the past five decades, India has made significant improvement in healthcare but it still lags behind other developing countries on key health indicators.

- Being one of the largest sectors in India, the revenues from the healthcare sector account for 5.2 percent of the GDP making it the third largest growth sector in India.
- Public health expenditure in India as percentage of GDP is only 1% leading to increase in private expenditure on healthcare.
- It has grown from USD 4.8 bn to USD 35 bn in 2007 and is expected to touch USD 78.6 bn in 2012 and cross USD 150 bn in 2016.
- Employs over 4 million people
- Growth of 15% per year expected over next 4-5 years
- Private segment constitutes the bulk and expected to reach USD 38 bn by 2012.

ii. India constitutes 17% of the world's population but contributes 20% of the disease burden. It has not been able to achieve the national goal set for year 2000 for reduction in MMR, Polio, BCG cases by the National Health Policy 1983.

iii. The presently estimated new cases of reported ailments in India is worth 115 crore (1.15 bn) with 3 crore (0.03 bn) cases of hospitalization and it is expected to touch 150 crore (1.5 bn) in the next six to seven years with a growth of 30%.

iv. Comparison of India with BRIC nations like Brazil, China, and Russia shows that these nations have achieved more compared to India with similar constraints during the last four to five decades.

- Infant mortality rate in India is more than twice that of China and Brazil
- Life expectancy at birth in India is almost 10 years less than China and Brazil
- India's disease burden is around 37% higher when compared to Brazil and 86% higher when compared to Chin
- DALYL for non-communicable diseases differed marginally for India, Brazil and China where as DALYL for communicable diseases impacting maternal, perinatal and general nutritional conditions were 3 to 4 times higher[2].

[2] *DALYL (Disability Adjusted Life Years Lost) is one of the commonly used parameters for measuring the disease burden of a nation or a community.*

- The bed density per thousand population in India is only 0.86 which is one-third of the world average of 2.60 where as in Brazil and China it is 2.60 and 2.2 respectively.

v. Future projections as per the 10th Plan indicate that the changing lifestyle will increase non-communicable diseases burden like Diabetes, Hypertension etc as compared to communicable diseases.

Disease Burden over the Years (1990-2020)			
Year	Communicable	Non-communicable	Injuries
1990	56%	29%	15%
2020	24%	57%	19%

vi. Comparison across States

- Urban-rural divide persists with rural India bearing three-fourth of the ailment burden of India, but has only one-fourth of the human resources for health and one ninth of hospital beds.
- Disparity across States are seen with prosperous States like Kerala having bed density per thousand population of 3.45 whereas Madhya Pradesh which is a densely populated area has bed density of only 0.35, one-tenth of the global average.
- For six States of India (i.e Madhya Pradesh, Orissa, Bihar, Haryana, Jammu & Kashmir and Uttar Pradesh) comprising 37% of the population, hospital beds per thousand population is less than two-thirds of the current national average of 0.86.
- The "effective" bed density could even be lower due to shortage of staff, which results in hospital beds remaining under-utilized.
- Shortage of specialists/doctors, lab technicians and health workers in rural healthcare system is about 28 to 30% which is compounded due to of lack of delivery at the ground level.

vii. Health Infrastructure- India rates poorly on health infrastructure[3].

- Scarcity of human resources for health in terms of doctors, nurses, paramedics and even lab technicians.

[2]*Source: WHO Statistical Information Systems*

- India has only 8% of the global universe of doctors, 8% nurses, 9% community health workers and only 1% lab technicians despite a disease burden of 20% on a population of 17%.
- Though there has been an increase in the number of beds, human resources in terms of doctors and nurses but not in line with the requirement of the country.
- India's population has increased by 15% during the last decade and the number of patients reporting ailments per thousand population has grown by 66% and the total number of patients has gone up by only 5.1% but the bed density has in fact declined by 7%.

viii. Private & Public Healthcare facilities

- Although the private care is two to three times expensive than the public healthcare, yet 60% of in-patients opt for treatment in private hospitals primarily due to
  - ❖ Lack of access to public hospitals
  - ❖ Inconvenient timings and facilities
  - ❖ Absence of Healthcare personnel
  - ❖ Long waiting period
  - ❖ Poor quality of care in the public hospitals

ix. Quality and quantity of healthcare

- 80 to 85% of the healthcare providers in this country comprise of the private sector of which 63% are registered and 37% are not registered entities.

x. Healthcare Expenditure

- If the total healthcare expenditure is divided, Private Expenditure accounts for 74.2%, Public Expenditure accounts for 23.6% and External support accounts for 2%.
- Private expenditure constitutes 68.8% of household expenditure, 5.1% firms, 0.3% NGOs. 62% of healthcare expenditure is out of pocket expenses and the remaining is Health Insurance premium.
- Public expenditure constitutes 7.2% Central Government, 2.2% Local Government and 14.4% State Government expenditures respectively[4].
- Cost of in-patient and out patient treatment has also doubled in the last decade. Percentage of annual household expenditure due to a single hospitalization case is around 20% for rural population and for the people below poverty line (both rural and urban) is almost 50% of their annual expenditure.

[3] *Source: National Health Accounts, India, 2002, WHO*

- Lack of finances and awareness contribute to 60% and 70% of ailments remaining untreated in rural and urban respectively.
- Increase in the drug price during the last decade 1994-2004 has outstripped the wholesale price index of all commodities. Despite the price control, the pharmaceuticals have grown beyond WPI index.
- The diagnostic costs and medical technology as a percentage of the overall healthcare delivery cost has increased significantly by 143 to 300 percent during the last decade.
- The rise in medical technology cost has been because of dependence of import of medical equipments and devices from abroad.

xi. Health Insurance

- Number of lives covered by insurance schemes is 13.7 crores (0.137 bn) which is 12% of the total population whether government or private.
- Reasons for low penetration of insurance are
  - ❖ lack of awareness
  - ❖ high cost of private insurance
  - ❖ Inadequate infrastructure of insurance companies to provide outreach, deal with high volumes of claim and exclusion of cost of key diagnostics and treatment procedures in the insurance product.
- The costs of CGHS and ESIS premiums are low and offer a wide range of services including AYUSH, chronic and out patient care. In contrast, premium of private insurance products are high and offer a limited range of services and a high level of exclusions. For ex, the average premium of CGHS and ESIS varies between Rs 15-750 where as the private and group retail is Rs 1150 according to the Tariff Advisory Committee.

CHAPTER I

Healthcare Infrastructure and 'Infrastructure Status'

I. Healthcare Infrastructure and 'Infrastructure Status'

a) Issues

i. The Healthcare Delivery Market (2001)

- Market Size is Rs 86000 crore, (17.2 bn USD) where the Private sector accounts for 63% and the Government accounts for 37%.

ii. Increase in lifestyle diseases is due to huge disposable income in hands and increase in quality of living.

- Lifestyle diseases will take centre stage as market will grow from Rs 6750 Cr (1344.62 Mn USD) to Rs 27000 cr (5378 .46Mn USD) by 2012 reflecting a fast emerging need for tertiary care infrastructure.

iii. Economic progress, growth & prosperity and increase in lifestyle diseases have brought about awareness about quality healthcare.

- This has led to a huge demand for quality private players, health facilities, and supply of doctors.
- But in India, the beds per thousand population is 0.86 compared to a world average of 3.3, Physicians are 1.2 (only 0.5 are allopathic physicians) compared to a world average of 1.5 and nurses are 0.9 compared to a world average of 3.3.
- There is a huge demand – supply gap because of lack of investment. The FICCI – E&Y report points out that to meet a target of 1 doctor, 2.2 nurses & 2 beds per thousand population by the year 2025, India would need a total investment of about USD 86 billion (Rs 3,70,000Cr)

iv. Both the public and the private sector investment are required to meet this demand.

- Out of total public sector spend of Rs 220,000 million (43824.71Mn USD) in healthcare; Rs 150,000(29880.47 Mn USD) million goes into NRHM scheme thus creating a huge deficit in spending for healthcare facilities at the primary, secondary and tertiary healthcare.
- The following investment challenges in healthcare inhibits private sector investment in a major way:
  - Long gestation periods

- Operating margins lower than other sector
- Highly capital & manpower intensive
- Fast Technology Obsolescence
- Rising manpower costs
- Low patient ability to pay in tier II cities
- Challenges to send manpower to tier II cities &
- Low insurance penetration

Hence a change in policy is imperative to attract the private sector investments. Mind set change is necessary to understand that granting Infrastructure status to healthcare sector will not only benefit the private players but also the civil society. A sound financial management structure is required for the creation of a quality healthcare Infrastructure.

b) Recommendations

i. Recognizing the role of private healthcare providers in creating affordable, accessible and quality healthcare infrastructure through sensitization of the decision makers by providing appropriate information through dialogue.

ii. Health care infrastructure should not just be viewed as a social good but also as a viable economic venture with productivity.

iii. Facilitate Public-Private Partnership projects for building health infrastructure through healthy dialogue between the public and the private sector and extensive stakeholder consultation by involving the civil organizations, NGOs and the Government to leverage each other's strengths.

iv. Target for 2 beds per thousand population by year 2025. Prime requirement would be Human Resources for Health.

- Private sector to be encouraged and incentivised to make the required amount of investment particularly in Tier II & Tier III cities and in those states lagging behind in the development of the health sector.
- Policy changes in line with the current market realities related to medical education
- Allow private players to enter medical education and allow a financially viable and realistic fee structure.

v. To attracting private healthcare investment to supplement the public funding deficit in healthcare allocations, following fiscal and non-fiscal incentives are required:

- Fiscal Incentives in terms of
  - income-tax holiday of at least 10 to 15 years in metros & non-metros respectively

- Provision of softer loans from banks because of high interest rates in the market
- Waiving off customs duty for importing life saving medical equipment
- Higher depreciation rates for medical equipments
- Excise duty waivers

- Non-Fiscal Incentives in terms of
  - Land at Institutional rates
  - Simplification of building laws (i.e Height, FAR etc)
  - Fast track single window clearance of licenses for timely completion of projects
  - Incentives at par to those given to other sectors (if not equal)
  - Incentivisation of accreditation process to attract private healthcare providers to get accredited for quality assurance
    - ❖ Automatic empanelment
    - ❖ Rate differentiation
    - ❖ Quicker clearances of government dues like CGHS & ECHS.

CASE STUDY 1

Lessons from Telecom Sector Experience

- Total GSM Subscribers (in Mn) has increased from 10.5 in FY 2002 to 180 in FY 2007. The CAGR is around 90%, currently the total subscriber are 286 million.
- Reduction in Mobile set prices.
- Reducing ARPU
- Reduction in tariffs has made it affordable for the common man

More investments from foreign companies.

vi. Replace the non-viable concept of free treatment by the private sector in lieu of incentives by
  - Introducing third part payment by the government or insurance system.
  - Facilitating adoption of certain referral centres (PHCs) which are not performing well by the private players within their vicinity.

vii. Human resource is a major constraint in the expansion of healthcare infrastructure. Thus medical education should be made transparent and freed from regulations for quick expansion. Non-viable norms like each medical college owning a 500 bedded hospital should be done away and be replaced by utilizing the 300 bedded District hospitals for teaching purpose.

viii. Effective utilization of Information Technology and Communication to provide healthcare infrastructure to the remotest corner of the country.

CASE STUDY 2

ISRO Telemedicine

- A case in example is the Telemedicine project of ISRO started in the year 2001.
- ISRO decided to use communication satellite and provide bandwidth and develop the necessary technologies, provide connectivity for connecting district hospitals in the States which are Government Hospitals & Trust hospitals to the specialist hospital.
- As per the policy of Government of India, the communication satellite bandwidth was provided free of cost.
- NGOs and private organizations were roped in to deliver healthcare to the remotest parts of the country.
- The project has been successful and has resulted in the formation of a national task force by the Ministry of Health, Government of India.

c) Benefits

i. Improved access

ii. Even distribution of healthcare infrastructure across urban and rural areas

iii. Reverse brain drain of healthcare human capital

iv. Multiplier effect on numerous other sectors like SME's, Ancillary, Consumables, Drugs, Medical Technology

v. Decongestion of Tier I & Metros

vi. Reduced cost of Medical Equipments due to increased demand.

CHAPTER II

Private Investment in Healthcare

II. Private Investment in Healthcare

a. Current Scenario

India is one of the most privatized health economies in the world. Although, it is the Government's mandate to provide healthcare to all, but lack of availability of adequate public funding has made it imperative to depend on private investments in healthcare. FICCI and Ernst & Young report anticipates about 70 billion USD private sector investments in healthcare to reach a ratio of 1.85 beds per thousand population in 2012.

i. Status of private investment in India's healthcare sector

- Private investment in healthcare has come in the form of Private equity, acquisitions, joint venture, tie-ups, venture capital, IPOs, Foreign Direct Investment (FDI), Foreign Institutional Investment (FII) and NRI investment. Since 2001, Foreign Direct Investment (FDI) has been permitted through automatic route, but the inflow has not been as comparable to other services sectors.
- Segments attracting private investment include diagnostic chains, medical device manufactures, corporate hospital chains, etc.
- There has been significant growth in Private Equity (PE) investments in India's healthcare sector. Private Equity has become the preferred mode of investment as earlier debt to equity ratio was 2:1 for a healthcare company, now the trend is to have 1:1. Healthcare companies prefer PE funds for raising capital compared to IPO or debt.
- PE was over $448 million in 2007 and the expected investments are $ 5 billion between 2008 and 2011.
- The Indian healthcare sector attracted US $ 1.488 billion from 2004 to 2007 approximately 6.3 per cent of the aggregate PE investment of all sectors taken together. (Source: Boston analytics)
- In the coming years focus area of PE funds would be primarily on consumer-oriented centers like Pharmacy retail chains, Health & Wellness Centers, Spas & Beauty Centers etc.
- There have been Joint ventures and tie-ups between leading Indian hospitals and domestic/overseas companies/institutions. To name a few, Harvard Medical International has associated with Wockhardt Hospital group for devising and executing programs to improve patient - centered quality care , Parkway Group from Singapore has tied up with one of India's largest healthcare providers Apollo Group of Hospitals. The Apollo Gleneagles at Kolkata offers a wide range of healthcare services.
- Emaar from the Middle East and Prexeus Health Partners from the US have announced their plans of entering the Indian healthcare industry through Joint ventures. They are still in the preliminary stage.

Table 2

List of PE Players in Healthcare

- ICICI Venture
- Bluewater International Investment
- Ajay Piramal Group
- Singularity Ventures
- Daninvest
- UK-based CDC Group
- IDFC
- JP Morgan Private Equity Fund
- Evolvence India Life Sciences Fund
- Blue Ridge
- Carlyle
- Global Healthcare Investments & Solutions
- Lightspeed Advisory
- Groupe Limagrain
- ePlanet Ventures
- Barings Private Equity Partners India" Fidelity International
- Blackstone
- HSBC
- American International Group Inc (AIG)
- George Soros's fund Quantum
- Reliance Life Sciences

Table 3

Recent or Proposed Healthcare Investments

Investors	Hospital	Investment (INR in Crores/MnUSD)	Stake (in %)
Apax Partners	Apollo Hospitals Enterprise Ltd	426.40 /84.94	
ICICI Ventures	RG Stone Hospital	40/7.968	
I-Ven Medicare-PE arm of ICICI Ventures	Sahyadri Hospital, Pune Medical Synergie, Kolkata Vikram Hospital, Mysore Metropolis Health Services (Diagnostics Chain)	140/27.88 65/12.94 96/19.124 40.16 /8 1255/250	
George Soros VASCO	Fortis Healthcare	2.131/10.7	10
IDFC	Manipal Health System Healthcare Global Enterprises	100.4/20 50.2/10	
American International Group Inc & J P Morgan	Narayana Hrudayalaya Pvt Ltd	502/100	25
IFC	Max Healthcare	300/59.761	
Blue Water		500/99.602 (Healthcare Fund)	
GHIS		2510/500 (Healthcare Fund)	

b. Issues

Although, private investments have grown in the healthcare sector in recent times, but long term direct investment is not forthcoming due to the non-existing regulatory framework, inadequate infrastructure & human resources deficiencies.

i. Domestic Investment

Lack of organized players and professionalism in the healthcare sector makes private investors wary of investment.

ii. Foreign Investment

Regulatory framework is quite liberal for foreign investment in hospitals in India

- Since January 2000 up to 100 percent FDI is allowed under automatic route in hospitals in India. Controlling stake allowed.
- FIIs and private equity funds can individually purchase up to 10% and collectively up to 24% of paid up share capital of company via open offers or private placement or through stock exchange.
- Indian companies can raise capital through American Depository Rates (ADRs) and Global Depository Rates (GDRs) under automatic route, up to 49% subjected to adherence of FDI norms.
- Proprietary funds, foreign individuals, foreign corporates can register as sub account and invest via FII subject to 10% and 5% limits.
- Regulatory environment for other forms of foreign financing is quite liberal with FIIs and private equity funding permitted under FDI norms.
- Foreign venture capital investments also allowed.

Issues

Many other sources of foreign financing exist, but short term commitments are more prevalent than long term FDI in spite of the liberal foreign policy because of certain inherent constraints.

- External Constraints
  - Reforms process in overseas Healthcare sectors limits number of potential investors
  - Requirement of localized and in-depth knowledge of host country market
  - Constraints in setting up individual investments
  - Constraints in establishing and maintaining joint ventures
  - Competing destinations
  - Less attractive destination for investment due to perceptions of red-tape, lack of policy clarity, lack of transparency, and problems of efficiency
- Domestic Constraints
  - High cost of setting up hospitals because of land and equipment

- High investments at Rs 40 lakhs per bed. Thus, a 100 bed hospital would require an investment of Rs 40 crores.
- Long gestation period of 5-7 years i.e relatively low returns on such investment which in turn means low asset turnover (below 1 or 2 for major hospitals) and Profits of 13% or less after several years
- Depreciation of assets
- High interest costs of debt financing
- Margins squeezed by very high operating costs
- Sector specific and other factors adversely affect FDI commitment in hospitals

c. Recommendations

- Transparent regulatory frameworks and better institutional governance needed for increasing private investment in healthcare.
- Policy framework needs to create an investment environment by improving access to healthcare and exploiting domestic and global opportunities for synergies across segments.
- Pending legislation, maintaining standards, setting up national councils/regulatory bodies, adherence to accreditation, penetration of insurance and investment in human capital are key areas to be addressed:
  - Unavailability of land at institutional price for non-trust or non society modes of operation increases the capital cost as lands constitute around 45-50% of project costs.
  - Delays caused due to non-transparent processes for getting building clearances are additional burden on the investor.
  - Unavailability of appropriate framework to guide establishment of new hospitals & nursing homes.
  - Outdated regulations of Medical Council of India, Nursing Council and non-existing plans for Para-medic education is restricting the quantitative and qualitative supply of medical personnel at all levels
  - Private players unable to set up medical colleges because of the stringent establishment laws.
  - No significant indigenous medical equipment and devices manufacturing creates dependence on high cost imports which contribute to about 30-40% of capital and operating costs.
  - Lack of guidelines for standardization and quality certification of local manufacturers.
  - Sectoral isuues, lack of suitable health insurance products and low awareness of health insurance has led to low market penetration thereby limiting the paying capacity of the consumer.

CHAPTER III

Quality & Accreditation of Healthcare Facilities

III. Quality & Accreditation of Healthcare facilities

a. Quality: ***"Quality is not an Act, it's a Habit"-Aristotle***

Quality in healthcare can be defined as the degree to which a set of inherent characteristics i.e. delivery of services, perception of patients, systems, processes and outcomes fulfill the healthcare requirements. Patient safety is the most important aspect of Quality healthcare delivery. Thus an effective patient safety mechanism should ensure

- Simple rules to offer consistency and predictability
- Adherence of systems by the hospital staff and an alternate system in place which is activated in case of failure of operating system. Also determine the implications of a system failure
- IT based or manual data management and record maintenance should be mandatory
- Incorporate technology to streamline hospital operation and management
- Communicate advantages of the system to the Clinicians

Table 4

Country Facts & Figures of Medical Errors

- According to the Institute of Medicine, USA, the risk of dying as a result of medical error surpassed the risk of dying in an airline accident. Each year around 44,000 - 98,000 deaths occur due to medical errors which are far more than highway accidents, breast cancer, or AIDS. The annual cost of medical errors is around US$29 billion. Wrong site procedures were reported to the Joint Commission for 88 cases in 2005. (http://www.jointcommission.org/SentinelEvents/SentinelEventAlert/sea_6.htm
- Death on Domestic Flights is 1 in eight million flights while death in a hospital from medical error is 1 in 343 to 1 in 764 admissions and for adverse drug effects are 1 in 27 to 1 in 34 admissions.
- In UK 400 deaths occur due to medical device failure and 44000 to 98000 deaths due to medication errors. The annual cost of medical errors is £2 billion.
- In Australia, 25,000 to 30,000 preventable adverse events led to permanent disability, 11 % were due to communication issues and 6% due to inadequate levels of skill of practitioners. Source: British Medical Journal, 1995

  95% of the errors are caused due to systems failure and only 5% are caused by individual error.

*"**Medical errors most often result from a complex interplay of multiple factors. Only rarely are they due to the carelessness or misconduct of single individuals."***

Lucien L. Leape, M.D.

b) Accreditation

Accreditation is a voluntary process in which an independent agency assesses the healthcare organization to determine if it meets a set of requirements/standards designed to improve quality of care. A Standard is a statement of expectation that defines the structures and processes that must be in place in an organization to enhance the quality of care. There are about 100 set of standards and about 1000 measurable elements in NABH, JCI and other accreditation processes. The Standards are organized around important functions with focus on the patient care within the legal framework resulting in measurable outcomes.

i. Accreditation Organizations in India

Quality Council of India (QCI) is responsible for accreditation of healthcare facilities through the NABH (National Accreditation Board for Hospital and Healthcare Providers) and NABL (National Accreditation Board for Testing and Calibration of Laboratories). Out of 103 applicants applied for accreditation only 25 hospitals are accredited, out of 10 applicants for nursing homes, only 3 are accredited and in case of Blood banks 11 have applied and 9 have been accredited.

ii. ISQua - International Society for Quality in Healthcare (Apex Body) is an international body that confirms accreditation of various countries. There are only 12 countries in the world whose accreditation is approved by ISQua and India is one of them. Some of the Accredited bodies of ISQua are :

- The Australian Council on Healthcare Standards International. (ACHSI)
- Canadian Council on Health Services Accreditation. (CCHSA)
- Joint Commission International (JCI), USA
- Irish Health Services Accreditation Board
- Council for Health Service Accreditation of Southern Africa
- Taiwan Joint Commission on Healthcare Accreditation
- NABH (National Accreditation Board for Hospital & Healthcare Providers)

iii. Benefits to the Hospital

- Improves care and enhances public confidence
- Stimulates continuous improvement
- Demonstrates commitment to quality care
- Raises community confidence
- Comparison with self and other similar organizations

iv. Benefits to the Patients

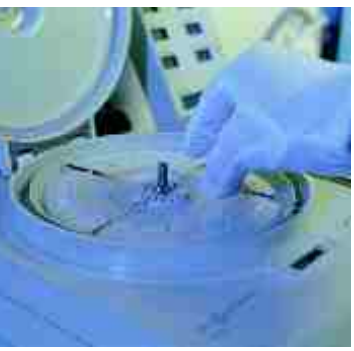
- Access to a quality focused organization
- Rights are respected and protected
- Understandable education and communication
- Satisfaction is evaluated
- Involvement in care decisions and care process
- Focus on patient safety

v. Benefits to the Employees

- Values employee opinions
- Measures employee satisfaction
- Involvement in quality activities
- Improved employee safety and security
- Clearer lines of authority and accountability
- Trained in Best practices
- Promotes teamwork

CASE STUDY 3

- **Benefits & Impacts of Accreditation-KIMS Experience**
  - Kerala Institute of Medical Sciences, a private limited company was the first hospital to have National and International accreditation in Nov 2006.
  - KIMS got the NABH Accreditation and the Australian Council for Healthcare Standards International (ACHSI) in 2006 and the NABL accreditation in 2007.
- **Benefits to KIMS**
  - Has resulted in continuous Improvements in Quality & Safety
  - Has a positive influence on other hospitals
  - Created an enhanced brand image and increased credibility
  - Decentralization of various systems like Pharmacy and Therapeutic Committee, Blood Transfusion Committee etc increased efficiency
  - Introduced an improved work culture, optimum utilization of resources, increased transparency, patient safety, infection control, reduced medical errors
  - Increased patients involvement in Management
  - Benefits to employees through continuous training and development and better job opportunities
  - Exposure to International standards
  - International faculty exchange



- **Outcomes**
  - ❖ Financial impact through increase in revenue, reduced ALOS, increase in patients through medical value travel and financial transparency.
  - ❖ New registration of patients increased from 32622 in 2004-05 to 40126 in 2007-08.
  - ❖ Revenue increased from 27% in 2004-05 to 30.69% in 2007-08.
  - ❖ Average length of stay decreased from 5.22 days in 2004-05 to 4.89 days in 2007-08.
- **Challenges to Accreditation**
  - ❖ Initial Investment is quite high but one needs to look at the positive aspect
  - ❖ Resistance to change is a major issue with doctors and staff
  - ❖ Lack of continued compliance

c) Recommendations

Some of the key requirements to sustain accreditation process in healthcare in India are:

- A proper regulatory framework for enhancing assurance on quality care
  - Mandatory registration of new clinical establishments confirming to defined minimum standards of service delivery. Existing establishments to comply in a time bound manner.
  - Incentivize accreditation by empanelling only accredited health facilities.
  - An autonomous body to rate healthcare facilities on a set of defined health outcome parameters.
- Educating policy makers on the benefits of accreditation
- Incentives to hospitals seeking accreditation
- Integrated healthcare approach needed with all stakeholders like pharma, medical technology and equipment companies on board to fulfill the prescribed standards
- Preference to accredited healthcare facilities in terms of getting clearances by the government or funding from corporates/investors or receiving insurance claims will promote accreditation.
- Focus of NABH should be on effective and efficient implementation and expansion.
- Creating public awareness through newspapers, internet, workshops, seminars would increase the demand for accreditation.

CHAPTER IV

Medical Education: Need for Expansion and Skill Enhancement

IV. Medical Education: Need For Expansion And Skill Enhancement

b. Issues

i. Quantitative

- Net addition (Net addition = New doctors produced-doctors going out of the system due to retirement or death) of doctors is 17000 per year against a requirement of 7 lakh additional doctors by the year 2025 to reach doctor population ratio of 1:1000.
- According to the WHO specification the doctor-population ratio should be 1: 600. If only allopathic doctors are considered the ratio is 1: 1700. In urban areas the doctor to population ratio is 1:1000 as compared to the rural ratio of 1:20,000. If doctors from all systems are collectively taken then the ratio is 1: 800.
- The nurse- patient ratio at 1:100-200 is equal behind the required norm of 1:4.

ii. Qualitative

- Medical Curriculum redundant due to lack of timely revision and updating. Relevant and emerging topics like Healthcare management, medico legal systems, pharmaco – economics, disaster medical management, bioinformatics and resource management are not included in the curriculum. Other areas to be focused are emergency medicine, Palliative care for terminally ill patients and Geriatric care for the old. Also little emphasis is on soft skill training and effective communication which is extremely important tool for communicating with the patients.
- Focus on teaching rather than learning, the curriculum provides facts and has less emphasis on innovation and practical training.
- Practical training is carried out mainly in tertiary care hospitals be it the government or the private sector thereby focusing little on the prevailing public health issues and on preventive care.
- Stress is on western problems and less on local and regional problems as most text books are by western authors

- Faculty is inadequate in teaching hospitals, qualitatively & quantitatively as they have no formal training in teaching technologies.
- The quality of education is also dependent on the expenditure per student. Since the student tuition fees in premier Government institutes is quite low as it is heavily subsidized by the Government, the quality of education does get compromised.
- Many private colleges do not have the requisite number of patients in clinical departments.

c. Existing Regulations Scenario

- Existing Statutory Framework
- Under the Indian Medical Council Act, 1956, the Medical Council of India has been constituted to regulate medical education.
- Indian Nursing Council regulates the production and quality of nurses.
- Presently, there is no regulatory body for para-medical education.
- Government strategies to meet the demand-supply gap
- Relaxation of existing norms for starting new medical colleges
  - Unitary campus concept withdrawn by scrapping the requirement of contiguous land and two campuses permitted, separated by a distance of 15 kms.
  - Land requirement continues to be 25 acres, but has been relaxed to 20 acres for under-served States like Bihar, UP, Rajasthan, Madhya Pradesh, Orissa, North Eastern States, Hill States, Hilly Districts and urban cities having population of less than 20 lakhs.
- Public - Private Partnership (PPP)
  - In NRHM States, North East States, Hill States and Hilly Districts in other States, all Government Hospitals will be allowed to partner as teaching hospitals attached to the medical colleges.
  - Terms and conditions for management of PPP medical colleges and teaching hospitals will be as per the legal agreement entered by both the partners for not less than 15 years.
- Entry of corporate sector into the medical education
  - Companies registered under Companies Act will now be eligible to set up medical colleges.

- Private hospitals can start Post Graduate (PG) courses.

● Countering Faculty shortage

- Teacher student ratio for PG courses has been revised from 1:1 to 1:3 for pre-clinical subjects and certain clinical specialties, while the ratio is 1:2 for the remaining clinical subjects.
- The maximum age limit of appointment of teachers in medical institutions is being raised from 65 to 70 years subject to physical and mental fitness on a yearly basis
- The criterion for one year research in the teaching institution with regards to DNB qualification for its equivalence to PG degree is being dropped.
- Teaching experience gained in the medical institutions conducting courses accredited to National Board of Examinations shall be counted as teaching experience for appointment as teachers in medical institutions.
- Teaching experience gained in recognized foreign medical institutions shall be counted towards teaching experience for appointment as teachers in the medical colleges.
- Under central funding, an amount of Rs. 1,350 crores is being provided to the State Government medical colleges to upgrade teaching facilities in order to increase PG seats.

● Recognition of Foreign degrees

- Foreign PG medical qualifications from five English speaking countries namely; USA, UK, Canada, Australia and New Zealand have been granted recognition by the Government.

● Upgradation of skills

- Imparting basic management skills in the areas on human resources, materials, resource management related to healthcare delivery, general and hospital management and inventory skills and counseling.
- Strict evaluation of 1 year internship to acquire proper practical skills.
- Publication of research papers to be a mandatory criterion for appointment as Associate Professor & Professor.

● Doctors for rural areas

- One year mandatory rural posting for graduate doctors who want to pursue

PG degree in government institutions.

ii. Strategies in Pipeline

- To ensure quality and uniformity of standards, national EXIT examinations would be introduced.
- Renewing qualifications of doctors every five years to ensure proper quality of the medical personnel.
- Ensuring quality assurance of medical institutions
- Encouraging collaboration between foreign educational institutions and Indian partners for specialized training programmes.
- Facilitating setting up of medical colleges in India by foreign medical institutions.
- Implement reforms in the nursing, pharmacies and paramedical areas.
- Setting up of two national para-medical institutes and six regional institutes.
- Approving the Para-medical & Physiotherapy Councils Bill, 2007 to regulate the stndards.

d. Recommendations

- The National Knowledge Commission Report 2007 suggests changes in the syllabus, curriculum, evaluation, faculty selection and development, infrastructure, rules & regulations and role of regulatory bodies to bring about the much required changes in medical education.
  - Restructuring the regulatory framework to be facilitating and effective implementation of the reforms.
  - Introducing practical oriented syllabus with reduction of factual content in the course.
  - Change of curriculum with emphasis on problem-based learning
  - Introducing credit based evaluation with CGPA (Cumulative Grade Point Average) system and objective structured examination
  - Providing practical experience to the students in administration of injections, blood pressure evaluation, basic cardiac life support, insertion of canulas and labour management before they enter the wards.
  - Recruitment of good faculty, retaining them and developing linkages with the industry.
  - Libraries to be developed with E-Learning techniques.
- Need to impart Palliative care education to medical students through medical

education.

- Emphasis on Research particularly Clinical Research and Continuing Medical Education.
- Allowing Foreign Universities to establish campuses in India and allowing the Indian Universities to establish branch campuses in other countries.
- Facilitating private sector to set up medical colleges through public-private partnership arrangement and incentivising private sector to open Medical colleges in Tier II and Tier III towns.

CASE STUDY 4

Kasturba Medical College (KMC) – Public Private Partnership Example

i. The Kasturba Medical College, Mangalore is the first ever private medical college to be started in post-independent India as a public private partnership.

   - Dr T. M.A Pai, the founder, entered into public private partnership with Government of Madras in 1952-53 for the Lady Ghoshen and Wenlock hospitals at Mangalore in 1955.
   - This unique feature was replicated in Malaysia, Sikkim and District Government Hospital Udipi.
   - In 1953, the KMC was established with the Government run hospital
   - In such a PPP arrangement, 50% of the seats in the college are reserved for the Government at subsidized rates.
   - The clinical investigations are done free of charge.
   - The private entity develops the infrastructure.

ii. The Manipal University has twining programme with the Malaysian Government. The benefits are

   - Value based education with cultural mix
   - Share between basic sciences and clinicals
   - Increase in foreign exchange earnings

CHAPTER V

Importance of Health Insurance in India

V. Importance Of Health Insurance In India

a. Current Scenario

- Health insurance is of great importance to make quality healthcare affordable to masses at large. There is a strong need to make the market a viable business proposition through collaborative partnership, innovation in product design and incentives for consumers to invest in health insurance products.
  - The health insurance industry in India is at a very nascent stage as compared to countries like Singapore with 40 and Germany with 700 health insurance companies and Chile with 60000 health insurance plans.
  - In India, 80% of healthcare spend is funded by out of pocket expenses. Only 5 - 6 % of healthcare spending is funded through health insurance.
  - However, in the last 3 years, this sector has grown in excess of 40% as compared to 15% growth rate in years prior to 2000 and will continue to grow at the rate of 25% in the coming years. The health insurance market has gone up by two and a half times from Rs 2,200 cr in 2005-2006 to Rs 5,100 cr plus in 2007-2008.
  - This dramatic growth in last 7 years can be contributed to introduction of new players; product innovation; cashless transactions; benefit plans; critical illness benefits; specific disease products on cancer, diabetes etc; specific aids projects for senior; consumer awareness; new marketing strategies and increased role of the Government in using insurance as a mechanism to provide services to people below the poverty line.

b. Issues

- Health Insurer's Perspective
  - High claim ratio to the tune of 100% - 230% for Group Medi-claim Policy makes health Insurance less attractive business proposition for the private investors.
  - Lack of transparent billing mechanism by the hospitals is a serious concern
  - Absence of any pre-defined protocol and standards of minimum health management in the hospitals, the insurance companies have difficulty in developing health insurance packages.

- Large number of disputes arises in absence of a uniform definition of pre-existing diseases leading to different interpretations by different insurance companies. From 1st of June 2008 the General Insurance Council (GIC) has introduced a uniform definition of pre-existing diseases in all health policies to reduce confusion as well as litigations and grievances.

- The GIC is also addressing the issue of portability and renewability of products subject to certain conditions to ensure elderly persons vulnerable to sickness or persons with pre-existing diseases are not left out of the health insurance loop.

- The healthcare inflation owing to rising cost of diagnostics, variable cost of treatments and consumables and infrastructure costs is a major constraint in creating standard insurance products. Hence segmentation of products is inevitable to make health insurance accessible for all.

● Healthcare provider's perspective

- Delayed payments, denied payments and disputed payments leading to huge outstanding Bills from the Third Party Administrators (TPAs) or the Health Insurance Provider directly impacts the financial viability of smaller Hospitals and Nursing Homes.

- Lack of transparency with respect to clearing of payments by the TPAs/Insurers further aggravates the matter.

- Unavailability of TPAs on Sundays and other holidays contribute to the delay in the processing of discharge.

- Lack of IT application by most TPAs causes loss of data, time and resource

- Lack of product innovation does not allow to adequately cover people from varied socio-economic strata under health insurance.

c. Initiatives by the Government

● Steps are being taken by IRDA to relax the entry barriers to encourage foreign specialist and health insurers to invest in the sector. IRDA is mandated to give preference to life or non-life companies that will invest in health insurance business.

- FDI upto 26% permitted subject to obtaining license from the Insurance Regulatory & Development Authority (IRDA).
- Measures are being taken by the Government to increase FDI to 49%.
- IRDA has directed segment wise reporting from Insurance companies to get the exact data on health insurance to get the exact picture on the Claim ratio.

- Detariffing policy has been introduced that enables provision of discounts through other policies and not just health insurance.
- The government has already taken some initiatives like an amendment in the income tax act in 2008-09 budget, which states that in addition to an individuals tax deduction of Rs 15000/- under section 80-D, if insurance is bought for dependent or independent parents then there is an additional deduction of Rs 15000/- to 20000/-. This has led to increase in health insurance for senior citizens.
- A number of schemes have been initiated by the Central Government and the State Governments like the Rashtriya Swasthya Bima Yojana at the central level and the Yashaswani and the Arogyasri scheme in Andhra Pradesh which provides health security to a large chunk of the population which was so far not able to access basic healthcare.
  - Under the Rashtriya Swastha Bima Yojana the Government is an increasingly important purchaser of services and utilizes commercial insurance companies to manage these funds. The RSBY aims to cover 30 crore people by 2013. In the current year the Government plans to cover six crore people and the scheme would be rolled out in many states.

d. New Developments

- New definition of pre existing diseases has been introduced by the General Insurance Council of India from June 2008 that needs to be considered while settling the claims under the existing policies by the health insurance providers.
- Consensus in treatment protocols available within the health industry and the Standard Treatment Guidelines being developed by the Ministry of Health and Family Welfare Government of India and FICCI will help in minimizing the friction between the insurers and the healthcare providers.
- Suggestion to cover OPD costs to reduce unnecessary admission in the hospitals
- Move to cover annual health check up to Rs 60000/-to Rs 80000/- to facilitate early detection and cure thereby saving huge amounts that the insurance company have to pay because of late detection of diseases. These products have gradually entered the market. However, consumer acceptance may take time as these packages will have higher premium.

e. Recommendations

- The cost of healthcare will continue to rise due to advancement and change in technology. Given the realities of economies of healthcare delivery it is essential to classify the level of healthcare and have differential health insurance packages for different healthcare provisions.

- In a country where the population growth is quite high and the per capita income too low, the government needs to either subsidize or provide tax incentives to create that purchasing capacity and affordability among the population in order to increase the penetration of health insurance.

· Health Insurance cover should be ensured for 50% of the population by the year 2015 & 80% by the year 2025 with

  - Mandatory Health insurance for formal sector
  - Mandatory Health Insurance for the BPL population by the Government.
  - Promote retail & community health insurance for informal sector

- Capacity building of Intermediaries selling and servicing medical policies
- Educating the consumers on the benefits of health insurance.
- Define Standard Treatment Guidelines and cost implication jointly with healthcare provider and health insurers to bring about transparency and develop common understanding.
- Linking of insurance premium to investment option, savings account or tax incentives to address the mindset of people regarding complete utilization of premium paid. Recently ICICI Prudential has introduced such a scheme.

  Though products like the BHAVISHYA AROGYA Scheme was launched in the 1990's by the General Insurance Industry with a similar scheme, it did not become popular with the masses due to lack of awareness and education. There is a need for reemergence of a similar kind of a product.

- Scaling up of health Insurance package including second opinion option from best international hospitals like Mayo Clinic or Johns Hopkins for a critical illness is essential. Such a scheme has been introduced by Bajaj Alliance Life insurance.
- Electronic transactions for authorization approval, online claim management solutions and availability of insurance packages permitting certain level of pre-existing diseases should be initiated
- Ensuring portability

  - Develop health insurance packages with standardized treatment and pricing for different conditions with clear understanding by the hospitals and the patients.
  - Treatment protocols with predefined cost will ensure the hospitals are aware of actual cost of treatment that will be covered by the insurance company and timely payments from the insurance companies.

- Access to senior citizens

  - Design long-term renewable product for the aging population. At present entry at younger age is encouraged but the older population finds it difficult to enter the health insurance system due to barrier caused by pre-existing diseases.

- Community plans and increasing accessibility

  - Providers and health insurers can work together to ensure coverage in areas where healthcare is not available.

  - In certain models of health insurance with inadequate availability of providers the financing mechanism has encouraged providers to be available because it brought in the paying capacity.

- Providing healthcare to the disadvantaged & rural community

  - Create tie-ups between Health Insurance companies, Central Government and State Government to subsidise the health insurance policies targeted for rural communities and disadvantaged sections.

  - Health insurance schemes by State Governments like Karnataka, Andhra Pradesh, Punjab, Assam, Kerala and different ministries of the Central Government through self-managed funds and insurance companies need to be replicated and scaled up.

  - More micro insurance schemes such as the handloom weaver scheme that cover OPD costs for rural community by the Development Commissioner Handlooms should be replicated.

CHAPTER VI
Medical Technology

VI. Medical Technologies

Medical technology can be further divided into five distinct segments like medical equipment, medical devices, diagnostics & medical software/healthcare IT. Medical Technologies is one of the three vital pillars of healthcare with a growth rate (CAGR) of over 20%. It is estimated that the market will grow to almost USD 8 billion by 2012. 85% of the medical equipment devices and diagnostic products are imported. 25 to 40% of healthcare investments are attributed to medical technologies. Impacts on medical devices and equipments due to changes in the regulatory policy introduced by Drugs Controller General India directly affect the cost of healthcare provision which in turn is passed on to the patients ultimately.

I. Issue

- The medical technology industry is neither regulated nor given focus.
- There is no cohesive effort in bringing medical technology as one industry under the Department of Health & Family Welfare.
- Lack of indigenous manufacturing base of Medical Technology leads to high cost of medical equipments and devices as they are imported from developed countries like USA, Germany and Japan at high cots.
- Presently import-export and commerce policy and delays in land and other approvals makes it is easier to import medical technologies rather than manufacturing as importing of raw materials and spare parts costs more than the finished products.

ii. Government Initiatives

- The Drug Controller General of India (DCGI), Ministry of Health & Family Welfare, Government of India is in the process of formulating timelines for approval of activities like grant of export NOCs, test licenses, registration or granting approvals for bio-equivalent studies or global clinical trials to reduce the delays caused.
- Core Groups have been constituted to frame draft guidelines to deal with various regulatory issues that will be presented to the Government for consideration.

iii. Recommendations

- Industry recognition needs to be given to medical technology manufacturing

- There is a need for a single Bill and regulatory body. The introduction of regulations should be time sensitive to match with the market requirements as the medical technology market is dynamic and innovative in nature.
- The implementation of regulations should be planned with industry consensus.
- Amendment of the Title of Act to Drugs, Cosmetics & Medical Devices (Amendment) Act, 2007 and provide separate provisions in the Act specific to medical devices.
- There should be adequate representation of industry stakeholders in the Technical Advisory Board of CDA for appropriate deliberation and feedback.
- There should be provision for product listing and classification to keep pace with changing technologies and new product introduction
- There has to be a mechanism for tracing devices being sold in the country
- Medical equipments like X-ray machines, CT scan to be brought under one regulatory body
- Develop guidelines for uniform interpretation and enforcement across all States of India.
- Need to provide incentives to national and multinational companies for manufacturing medical devices and equipments to ensure quality, quantity as well as affordability.

CHAPTER VII
Medical Innovations

VII. Medical Innovations

- India has a varied, fragmented healthcare infrastructure with evolving regulatory and reimbursement landscape. It is fast emerging as the diabetes capital of the world and also the one with highest number of cardiac related diseases and other chronic diseases.
- Investments in healthcare through medical innovations have had a significant impact on patient's lives. Medical Innovation not only includes medical technology, pharmaceuticals or procedures but it includes the entire spectrum of treatment modalities including financing of healthcare delivery.
    - Innovative medical technologies offer improved efficacy and potential economic benefits.
    - Increase Productivity
    - Enhance overall economic welfare
- Data from Medtap publications, "The Value of Investment in Healthcare, "2003, authenticates that innovations in Healthcare have extended and improved lives both in the developed as well as developing world.
- Over the last twenty years, life expectancy from birth in the US increased by 3.2 years or 4%, while disability rates for people over 65 years declined 25%. These similar trends exist for developing countries like India as well.
- Value of health gains from investment in healthcare innovations indicated a return of 10% in heart attacks, 50% in diabetes, 60% in stroke, 380% in breast cancer and the overall gain of approximately 200% in the US.
    - Each additional USD1 invested in healthcare over the last 20 years has produced health gains valued between USD 2.40 and USD 3.00 in the US.
    - Medical innovation has brought economic benefits of treating cardiovascular diseases and low birth rate.
    - According to JAMA, one of the leading medical journals in the world, mortalit declined from 12% to 2.5% and the deduction has been 50% from 1999 -2005.
    - Trend of Mammography in women above the age of 40 in the US has been going up from 29% to about 70% in the year 2000. This has increased because of activ

intervention, campaign, awareness building etc. The flip side of this outcome is that the death rate from malignant neoplasm of Breast for Females from 1980 2000 has decreased substantially from 31.9% in 1980 to 27.1% in the year 2000.

- New treatments and technologies enable shorter lengths of stay. As per a study from Health United States 2000, National Center for Health Statistics, Table 92, and the inpatient hospital days has declined for a number of diseases like Heart, Ischemic & Acute Myocardial Infarction. There has been a 50% decrease in hospital days in only 13 years from 1985 to 1998. This can be attributed to medical innovation across the board.

- **Impact of Medical Innovation** on Indian Healthcare System

  - India has made significant improvements in health status over the past few decades by eradicating or substantially controlling several diseases like Small pox, Guinea worm, Polio & Leprosy etc

  - Although India lags behind developed and some developing countries on key health indicators such as life expectancy, infant mortality, morbidity etc and access is still a major hurdle, but innovation with technology and judicious use of resources have succeeded in getting some progress in treating eye-related illnesses, cardiac diseases etc.

- Impact of Medical Innovations - Global Evidence

  - Australian Productivity Commission reported that average life expectancy has increased about 3 months per year over the past decade. For context, an additional 6 days of life for average Australians would justify Australia's expenditure on medical technologies.

  - U.S. studies suggest that the economic benefits of treating cardiovascular disease and low birth weight infants together equal total U.S. medical spending for the past 50 years (MEDTAP reports, Cutler et al)

- **Benefits of Medical Innovation**

  - Reduction in hospital days which will enable efficient utilization of limited (quality) hospital capacity/beds to serve a greater number of patients thereby reducing waiting time.

  - It mitigates the burden on the medical practioner facing various constraints

- Decreases the risk of hospital-acquired infection
- Reduces the financial burden on the patients family due to days off from work and loss of wages
- Reduces costs of transportation from peri urban or rural areas to hospital and vice-versa for family
- Reduce cost of lodging near hospital for family members
- Increases the economic welfare of the community.

- Challenges in introducing medical innovation
  - Regulatory or other decision making barriers that delay or prevent the launch of innovative medical technology
  - The lack of inappropriate reimbursement systems for new medical products and services
  - Insufficient training & knowledge of medical professionals in the use of new products and treatment options.

CHAPTER VIII
Conclusions

- Given the demographics and the chronic disease profiles of developed and emerging economies like India, the healthcare burden and costs will increase which in turn will have an ever increasing pressure on healthcare budget and infrastructure.
- Public expenditure needs to be directed more towards preventive, promotive and primary care (particularly for perinatal conditions, lower respiratory infections, diarrhea diseases, tuberculosis, DPT and effective implementation of NRHM & NUHM initiatives) as private sector would not find this to be economically viable because of long gestation periods.
- Medical Innovations and technology can play a vital role in managing these pressures if used in a timely and efficient manner, recognizing their total benefits and value.
- The healthcare infrastructure both public and private needs to be strengthened and opened for competitive infrastructure that would allow more opportunities for providers, suppliers and incentive for development of new and market appropriate products.
- Coexistence of both public and private players should be facilitated with adequate incentive provided to the private players.
- A combination of private insurance models and public funding for the poor and other vulnerable segments should be promoted. This will help cover the cost of care, service and technologies for the patients.

The need is to create a "healthcare system" from a currently "underperforming sick care" to "quality sick care" affordable to all by introducing necessary reforms that will leverage upon the strengths of public and private sector and make healthcare attractive for entrepreneurial action.

Speaker Quotes

Dr Montek Singh Ahluwalia, Deputy Chairman, Planning Commission, Government of India

" There is role for public private partnership which would enable us to expand the total scale of resources by leveraging limited Government resources, bringing in more private resources and by introducing competition increase the efficiency with which service is delivered".

Shri Naresh Dayal, Secretary, Ministry of Health and Family Welfare, Government of India

"We have a growing burden of chronic non-communicable diseases, the cardio-vascular diseases, stroke, diabetes, cancer etc. In this area where the treatment costs are much higher, I think, the private sector will have to play a much larger role and partnerships will also have to play a much higher role."

Dr William A Haseltine, President, The William A Haseltine Foundation for Medical Sciences And Arts, USA

"We can learn about efficiencies from you. You can learn about some technologies from us. That is the basis of a partnership."

Dr. Jonathan B. Perlin, Chief Medical Officer and President – Clinical Services, Hospital Corporation Of America, Nashville, Tennessee, USA

"Quality is not an additional cost, quality is efficiency, an efficiency that comes about through the building of systems directed for improving public health and improving health services delivery."

Dr. Kenneth Ouriel, Managing Director and Senior Vice-President and Chief of International Operations, New York – Presbyterian Hospital

"There is probably no goal more important to a country than improving the health of its population; decreasing the prevalence of disease and suffering, infant mortality, and improving overall survival."

"If a nation's goal is to increase wealth, there may be no better means than to focus on healthcare through traditional capital investment in emerging nations and through technologic innovation in the mature economies."

Mr Sam Pitroda, Chairman, National Knowledge Commission, New Delhi

"We need to look at healthcare in a different way as opposed to finding faults with Government, as opposed to looking at only private sector as the saviors. There has to be a great mix of public private partnership. Government has a role to play. Private has a role to play"

About FICCI

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence and its subsequent emergence as one of the most rapidly growing economies globally. FICCI plays a leading role in policy debates that are at the forefront of social, economic and political change. Through its 400 professionals, FICCI is active in 38 sectors of the economy. FICCI's stand on policy issues is sought out by think tanks, governments and academia. Its publications are widely read for their in-depth research and policy prescriptions. FICCI has joint business councils with 79 countries around the world.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. FICCI has direct membership from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 83,000 companies from regional chambers of commerce.

FICCI works closely with the government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialised services and global linkages. It also provides a platform for sector specific consensus building and networking. Partnerships with countries across the world carry forward our initiatives in inclusive development, which encompass health, education, livelihood, governance, skill development, etc. FICCI serves as the first port of call for Indian industry and the international business community.

ACKNOWLEDGEMENTS

It gives us immense pleasure to bring out the **"FICCI HEAL 2008-Recommendations for the road ahead"** on the theme **"Fostering Quality Healthcare For All"** held on August 7-8, 2008 in New Delhi. The Event was a huge success garnering more than 300 Delegates from leading Hospitals, Medical Colleges, Medical Technology Companies, Corporates and Government Sector.

We take this opportunity to convey our sincere appreciation to the Ministry of Health and Family Welfare, Government of India, Ernst & Young Pvt Ltd, all the distinguished national and International Speakers, Delegates, Sponsors and Exhibitors for their participation and support.

Organizers

FICCI HEAL 2008

FICCI Health Services Division

FICCI, Federation House
Tansen Marg, New Delhi - 110 001
Tel: 011 23357253 (D), 011 2373 8760 - 70 (Extn. 513/220)
Fax: 011 2332 0714, 011 2372 1504
Email: healthservices@ficci.com